

REMARKS/ARGUMENTS

This is in response to the Office Action dated March 3, 2009. Reconsideration and withdrawal of the rejection are respectfully requested.

As a preliminary matter, claim 6 has been amended to reflect that the “layer comprising tin oxide” is “located between the first IR reflecting layer and the *second* layer comprising zinc oxide.” This is supported by both figures 1 and 2.

Claim 1 stands rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Glaser (U.S. Pat. No. 5,837,361) in view of Depauw (U.S. Pat. No. 5,153,054) and in view of Hartig (U.S. Pat. No. 5,557,462). This rejection is respectfully traversed.

Claim 1 requires “a first dielectric layer comprising zinc oxide from 40-150 Å thick; a first infrared (IR) reflecting layer comprising silver located over at least the first dielectric layer comprising zinc oxide; a second layer comprising zinc oxide located over at least the first IR reflecting layer and the first dielectric layer; a second IR reflecting layer comprising silver located over and contacting the second layer comprising zinc oxide, the second IR reflecting layer comprising silver having a thickness greater than the first IR reflecting layer comprising silver; a layer consisting essentially of an oxide of NiCr located over and contacting the second IR reflecting layer; a third layer comprising zinc oxide located over and contacting the layer consisting essentially of the oxide of NiCr, the third layer comprising zinc oxide being 40-150 Å thick and the layer consisting essentially of the oxide of NiCr being 20-45 Å thick; another dielectric layer comprising tin oxide from 40-200 Å thick located over at least the third layer comprising zinc oxide in the heat treated coated article; and when measured monolithically following heat treatment the coated article has a visible transmission of at least 80%, a sheet resistance (R_s) of less than or equal to 2.5 ohms/square, and a normal emissivity (E) of less than

or equal to about 0.04.” The cited art, alone and in combination, fails to disclose or suggest these features.

Glaser is directed toward a coated article having low emissivity and high light transmission. (Col. 2, lines 44-46 of Glaser). Glaser only discloses a single IR reflecting layer. As noted in the Office Action, Glaser is silent regarding heat treatment. Glaser also fails to disclose or suggest “a third layer comprising zinc oxide located over and contacting the layer consisting essentially of the oxide of NiCr, the third layer comprising zinc oxide being 40-150 Å thick and the layer consisting essentially of the oxide of NiCr being 20-45 Å thick.”

Moreover, in addition to the above deficiencies, although Glaser does disclose a *first* dielectric layer comprising zinc oxide, that layer is *considerably* thicker than the first dielectric layer comprising zinc oxide of claim 1. Applicant respectfully submits that citation to Depauw does not cure this fundamental deficiency. The Office Action alleges that one of ordinary skill in the art would modify this first layer comprising zinc oxide to be thinner based on the teachings of Depauw; however, one of ordinary skill in the art would not modify Glaser to contain a thinner layer comprising zinc oxide when Glaser specifically teaches that the thickness of zinc oxide is advantageous and important to the invention. (See Col. 5, lines 11-20 of Glaser).

Glaser teaches directly away from modification of the thickness of the first dielectric layer comprising zinc oxide. Glaser’s specification specifically states that “the crystalline growth of the zinc oxide layer, which occurs in zinc oxide layers having a thickness of greater than 15 nm [150 Å], is *very advantageous* for the emissivity of the silver layer.” (Col. 5, lines 11-20 of Glaser) (emphasis added). Again, the specification of Glaser specifically states that an object of the invention is to provide a coated article having a low emissivity. (Col. 2, lines 44-46 of Glaser). Based on the foregoing, one of ordinary skill in the art would not modify Glaser to

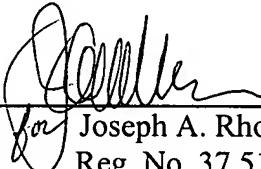
DIETRICH et al.
Appl. No. 10/797,580
June 3, 2009

contain a thinner layer comprising zinc oxide, because it would destroy the function of Glaser, and render it inoperable for its intended purpose.

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the rejection. If any matters remain to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 

30,184
Joseph A. Rhoa
Reg. No. 37,515

JAR:atp
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100